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HumRRO

Research Memorandum 1

Effects of Four Orientation Procedures on Airborne Trainees

October 1953

The George Washington University
HUMAN RESOURCES RESEARCH OFFICE
operating under contract with
THE DEPARTMENT OF THE ARMY

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EFFECTS OF FOUR ORIENTATION PROCEDURES ON AIRBORNE TRAINEES

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This study was done under the general supervision of John L. Finan. Members of the HumRRO Task Force who participated in this study are Eugene A. Cogan, Richard Walk, Raymond Fink, Gerald Kent, Howard H. McFann, Charles Windle, and Berton Winograd.

This study was conceived and designed by Eugene A. Cogan. This report was written by Raymond Fink and George Gray.

SUMMARY OF FINDINGS

The purpose of this experiment was to determine the relative effectiveness of four orientation procedures for Airborne trainees. More than 900 men in four Airborne training companies were randomly divided into four groups, each of which was given a different type of pre-training orientation. The four procedures were:

(1) "Standard" Orientation, normally used in the training of Airborne students.

(2) "Non-Fear" Orientation, similar to the "Standard" orientation except for the deletion of references to fear, safety, or "washout."

(3) No Orientation.

(4) "Glory" Orientation, which stressed the history, tradition, and "esprit de corps" of the Airborne. As in the "Non-Fear" orientation, references to fear, safety, or "washout" were avoided.

Comparisons of performance during training showed no statistically significant[1] differences among orientation groups in the following: the proportion of men successfully completing the Airborne course; the reasons for noncompletion of the Airborne course as indicated on the Student Progress Cards; the rate of "washout" throughout training.

To test whether the varying orientation procedures would produce variation among the groups in relevant attitudes, a questionnaire was administered early in the training period and the responses were analyzed:

(1) No significant differences were found among the orientation groups in the following areas: desire to have greater distinctions between the Airborne and other outfits; general attitudes toward the Army, and the desire to get out of the Army; attitudes toward discipline in the Airborne and in Airborne training; attitudes toward training, and concern over performance during various phases of the training program; attitudes toward "washouts," and the reasons for failure in training; measures of fear and self-confidence.

[1]Throughout this report, a difference among groups is considered "statistically significant" when the probability of this difference or larger differences occurring by chance would be less than 5 in 100.

(2) Occasional statistically significant differences were found among the orientation groups in some attitudinal areas. The following distinctions were observed in the viewpoints of the various groups:

(a) Men in the "Standard" orientation group were:
Least likely to regard the Airborne as "most dangerous."
Least likely to believe that civilians regard Airborne outfits as "better than most outifits."

(b) Men in the "Non-Fear" orientation group were:
Most likely to believe that civilians regard the Airborne as "better than most outfits."
Most likely to be confident that they would pass Airborne training.
Most likely to feel that there is no one who does not want them to get through Airborne training (this item was considered an indirect measure of self-confidence).

(c) Men receiving no orientation were:
Least well informed on information questions dealing with background, history, and traditions of the Airborne, in the instances when such information had been included in the orientations.

(d) Men in the "Glory" orientation group were:
Most likely to regard the men in the Airborne as more reliable in helping "a buddy" in combat.

(3) Among the three groups receiving some kind of orientation, no significant differences were found in their attitudes toward the orientations, or in the amount of information they retained from the orientations.

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INTRODUCTION

Purpose of the Study

This study was designed to determine the relative effectiveness of different orientation procedures which might be used in the training of enlisted men who have volunteered for Airborne training.

Airborne trainees at Fort Benning, Georgia, taking the three-week training course, are customarily given an initial orientation (indoctrination) to acquaint them with the program of training they are about to undertake. Since this orientation is one of the student's first contacts with the Airborne program, it was considered that the resulting impressions might well persist and influence student opinions and performance during the remainder of the training period.

The implied goals of the Airborne orientations can be assumed to be:

(1) To reduce attrition during training.

(2) To increase the "esprit de corps" among Airborne soldiers not only for the direct purpose of training better combat paratroopers, but also with the ultimate aim of stimulating the recruitment of other men into the Airborne.

This report is the result of an examination of the relative success or failure of four different orientation procedures in meeting these goals.

This study was originally suggested by members of the Airborne Department of the Infantry School, Fort Benning, Georgia, and done at their request. It was approved by the Office of the Chief of Army Field Forces.

Description of Orientation Procedures

In the standard training procedure, men in the Airborne program are given two orientation periods, each about an hour in length, prior to Airborne training.[1] The first period is conducted by the Airborne Battalion, the administrative organization for the trainees while they are in school. The second period is conducted by the Airborne Department of the Infantry School, which directs the Airborne training classes.

[1]For a complete description of the three-week Airborne training program, see Appendix A.

During the first period, a talk by the Commanding Officer of the Airborne Battalion describes the functions of the battalion and the duties of the soldier with regard to battalion details. Following this, the chaplain gives a talk dealing with the importance of the training, and encourages the men to attend religious services.

The second orientation period begins with a talk by an officer of the Airborne Department who tells the trainees what to expect during the three-week training period. The various phases of the training, the kind of performance expected of the trainees, and the discipline exercised during the training are described. After this talk, the students are shown a training film which follows a trainee through all the phases of the program. This film serves to introduce the student to much of the apparatus he is to use in training.

During both of the orientation periods, stress is placed upon the rigor of the training that lies ahead of the men.

For the purpose of this experiment, the Airborne Battalion and the Airborne Department varied their usual orientation procedure. In accordance with suggestions made by members of the HumRRO research staff, portions of the orientations were changed to conform with the experimental situation. Four different procedures were followed—each for a randomly selected sample of Airborne trainees. The four procedures were:

(1) "Standard" Orientation. One group received the orientation, already described, which is normally used in the training of Airborne students.

(2) "Non-Fear" Orientation. This procedure was similar to the "Standard" orientation except for the elimination of all apparent fear-evoking passages, suggestions of "washout," and danger or safety references.

(3) No Orientation. In this procedure the orientation talks and film were not presented. During the time normally allotted for orientation, the men were given the first phase of the regular instruction course.

(4) "Glory" Orientation. In addition to the orientation talks, this presentation included a film on the history of Airborne operations in World War II. This orientation was designed to foster pride in the Airborne history and traditions, and in the symbols which typify these traditions, such as the wing insignia and the paratroopers' boots. References to fear, safety, or "washout" were avoided.

Method of Collecting Data

To measure the effects of the different orientations during the training period, at the end of the third day of training the trainees were

given a questionnaire under conditions of guaranteed anonymity. For the most part, the questions can be broken down into the following areas: (1) background characteristics, (2) trainee attitudes, (3) information about the Airborne, and (4) some measures of personality. Most of the questions were multiple choice items wherein the respondent had only to check one of several offered responses.

Measures of the trainees' performance during the three weeks of Airborne training were taken from the records of the Airborne Department and from the records of each of the training groups. Background information about the trainees was gathered from the men's personnel files (Form 20).

Plan of Analysis

The four orientation groups have been compared with regard to:

(1) Performance during Airborne training.
(2) Attitudes toward the Airborne and aspects of Airborne training, and measures of self-confidence and fear.
(3) Knowledge of factual information about the Airborne.
(4) Opinions concerning the orientation.

All performance measures and questionnaire responses were analyzed through the use of the chi-square test, measuring the significance of differences among the groups.[2] A difference among groups having a chi-square value with a probability of .05 (i.e., five chances in 100 that such a value would occur by chance) or less was regarded as being significant.

Sample of Troops Tested

This study was conducted among 909 enlisted men who had volunteered for Airborne training. These men made up four companies going through training during October and November, 1952.[3]

Neither the companies nor the men in the companies were especially selected for this study. Rather, they were utilized because they happened to be going through training at the time of the experiment. The men were assigned according to the procedure normally used by the Airborne Department in making up their training classes; no special selection device was used. The men were not told that they were part of an experiment.

[2]See Appendix B for further description of the statistical procedures used in this study.

[3]One platoon from one of the classes was excluded from this study because it was being used in a concurrent study.

No two companies had the same cadre in the company area. Further, during the first week of training, in the Ground Training Area, the orientation groups were rotated in order to prevent an undue influence by any single group of instructors.

Within each of the four training companies, men were divided into four random groups. The effectiveness of this randomization is evidenced by the fact that in none of the background characteristics compared was there a significant difference among the groups.[4]

Each group was assigned to one of the four orientation procedures. The distribution was as shown in Table 1. Thus, in effect, four repeated studies were made, one in each of the four training companies.

Table 1

ASSIGNMENT OF TRAINEES TO ORIENTATION GROUPS

Company	Dates of Training	Orientation				Company Total
		Standard	Non-Fear	None	Glory	
W	13 Oct–31 Oct	54	55	51	56	2
X	20 Oct– 7 Nov	62	58	56	53	229
Y	3 Nov–21 Nov	60	66	62	57	245
Z	17 Nov– 5 Dec	52	56	56	55	219
Group Total		228	235	225	221	909

Arranging the men in the orientation groups so that there would be no intercommunication among the groups was not administratively feasible. For this reason some of the differential effects of the orientation procedures probably were minimized.

In the study of the questionnaire results, the analysis included only those men in the four experimental classes who (1) successfully completed the Airborne training course with the class in which they started[5] and (2) completed usable questionnaires.[6] The number of men in the

[4]See Appendix C for summaries of background information concerning the men in the four orientation groups.

[5]Seven men were exceptions in that they had been turned back from classes previous to this study, but completed questionnaires with classes in this study.

[6]A questionnaire was "usable" if it included sufficient information to permit positive identification of the respondent's questionnaire with his Army records (questionnaires and Army records were matched on date of birth and home town). Approximately 20 per cent of the questionnaires were not used in the analysis because they contained insufficient identifying information.

various orientation groups who met these criteria were: "Standard" orientation 144; "Non-Fear" orientation 138; no orientation 142; "Glory" orientation 135; total number of usable questionnaires from successful trainees 559.

PERFORMANCE DURING AIRBORNE TRAINING

Successes and Failures in Orientation Groups

No statistically significant differences were found among the orientation groups with regard to the proportion of men from the various groups who passed Airborne training. In the four groups, from 70 to 73 per cent of the men who started training completed it successfully.[7] Table 2 shows the outcome with regard to the men in each group.

An examination of the reasons listed for noncompletion of Airborne training also shows no significant differences among the orientation groups. Nor were there any significant differences among groups as to the training stage at which men "washed out" or "washed back." These aspects are examined more closely in the sections following.

Table 2

SUCCESSES AND FAILURES OF AIRBORNE TRAINEES IN EACH ORIENTATION GROUP
(per cent)

Performance	Orientation				All Trainees
	Standard	Non-Fear	None	Glory	
Completed training	73	73	70	71	72
Did not complete training[a]					
Refused to jump from mock tower (RJMT)	9	10	14	12	11
Failed physical training test (PT)	2	1	(b)	0	1
Not adaptable to Airborne training (NAAT), not adaptable permanently (NAP)	1	(b)	1	3	1

(Continued)

[7]As used in this report, "washouts" designate those men who are permanently disqualified from Airborne training; "washbacks" designate those relieved temporarily (*e.g.*, men who are "turned back" for additional training, men who become ill or are injured during training). Where the term "failures" is used, both "washouts" and "washbacks" are included. The term "successes" indicates those students who completed training with the class under study.

Table 2 (Continued)

SUCCESSES AND FAILURES OF AIRBORNE TRAINEES IN EACH ORIENTATION GROUP
(per cent)

Performance	Orientation				All Trainees
	Standard	Non-Fear	None	Glory	
Did not complete training[a] (continued)					
Temporarily relieved for medical reasons (TR)	3	5	5	6	5
Set back for additional training (Turnback)	10	9	8	6	8
Permanently disqualified for medical reasons (PD)	0	0	0	(b)	(b)
Refused to jump from 250-foot free fall tower (RJFT)	2	0	(b)	1	1
Refused to jump from plane in flight (RJPF)	0	1	1	0	(b)
Miscellaneous	(b)	1	1	1	1
Size of sample	(228)	(235)	(225)	(221)	(909)

[a]See Appendix D for fuller explanation of reasons for noncompletion.
[b]Less than one-half of one per cent in this category.

Reasons for Noncompletion of Airborne Training

The records of the men who failed to complete Airborne training were examined separately from those who succeeded (see Table 3) in order to determine if any differences existed between orientation groups. The best available record of the reasons for noncompletion of the three-week course was each man's Student Progress Card, a record kept by the Airborne Department of progress made during Airborne training.[a]

Although the reasons thus listed are the official record, they are not always complete or adequate indications of the actual cause for washout or washback. For example, some men unwilling to make the mock tower jump reportedly have deliberately failed the physical training test in order to avoid the necessity for refusing to jump from the mock tower; the reason for washout in such a case would be recorded as failure on the physical training test.

[a]See Appendix D for fuller explanation of reasons for noncompletion.

Because of the relatively small number of failures in each of the orientation groups (approximately 65 in each group), only relatively large differences between groups (about 20 per cent) can be regarded as statistically significant at the .05 level. As shown in Table 3, no significant differences occurred among groups in the reasons for noncompletion.

Of all the men who failed, 40 per cent did so by refusing to jump from the 34-foot mock tower, one of the earliest phases of the program. More than a fourth of the men (28 per cent) not completing training were turned back into future classes for more training, and an additional 16 per cent were relieved from training temporarily for medical reasons.

Both of these latter categories (nearly half of the failures) include men who will have another opportunity to complete the course. From other research done on this subject, it appears that many of these washbacks go on to pass the Airborne course at a later date. Special problems created by the practice of washback may form the basis for further fruitful research.

Table 3

REASONS FOR NONCOMPLETION OF AIRBORNE TRAINING IN EACH ORIENTATION GROUP
(per cent)

Reason	Orientation				All Failures
	Standard	Non-Fear	None	Glory	
Refused to jump from mock tower (RJMT)	33	37	46	41	40
Failed physical training test (PT)	6	3	2	0	3
Not adaptable to airborne training (NAAT), not adaptable permanently (NAP)	5	2	4	9	5
Temporarily relieved for medical reasons (TR)	10	18	15	22	16
Set back for additional training (Turnback)	38	32	25	18	28
Permanently disqualified for medical reasons (PD)	0	0	0	2	(a)
Refused to jump from 250-foot free fall tower (RJFT)	6	0	2	5	3
Refused to jump from plane in flight (RJPF)	0	3	3	0	2
Miscellaneous	2	5	3	3	3
Size of sample	(61)	(65)	(67)	(65)	(258)

[a]Less than one-half of one per cent.

Stage of Training and Rate of Failure in Training

Regardless of which of the four orientations was given to Airborne trainees, performance records summarized thus far in this report showed little difference either in the proportion of unsuccessful students or in the cause for failure as indicated by the Student Progress Card. To determine whether the orientation procedures had different effects on the rate of washout and washback at any given phase of the program, the records of those students who did not complete the course were examined further.

The proportion of students leaving the Airborne course at each stage of training and the cumulative total at each stage are presented in Table 4. Although there were minor fluctuations, differences among groups were not significant at any point during training.

Of interest is the fact that at the end of the first day of training fully 20 per cent of the failures had already dropped out, and by the end of the first week 59 per cent.

By the end of the second week of training nearly all the men who failed to pass the course had been eliminated. A substantial rise in the proportion of the failures is shown at the end of the second week because of the practice of holding back many of the failures until the week of tower training has been completed.

Table 4

FAILURE OF AIRBORNE TRAINEES AT EACH STAGE OF TRAINING, WITH CUMULATIVE TOTALS

(per cent)

Training Phase	Orientation[a]								All Trainees	
	Standard		Non-Fear		None		Glory			
	A	B	A	B	A	B	A	B	A	B
First week: Ground Training										
1st day										
Before 1st jump from mock tower	18	18	18	18	20	20	12	12	17	17
After 1st jump	2	20	2	20	0	20	5	17	2	19
After 2nd jump	0	20	2	22	0	20	2	19	1	20
2nd day	8	28	9	31	8	28	17	36	11	31
3rd day	5	33	15	46	18	46	10	46	12	43
4th day	2	35	3	49	4	50	2	48	3	46
5th day	16	51	9	58	15	65	10	58	13	59

(Continued)

Table 4 (Continued)

FAILURE OF AIRBORNE TRAINEES AT EACH STAGE OF TRAINING, WITH CUMULATIVE TOTALS

(per cent)

Training Phase	Orientation[a]								All Trainees	
	Standard		Non-Fear		None		Glory			
	A	B	A	B	A	B	A	B	A	B
Second week: Tower Training										
1st day										
Before 1st drop from free fall tower	5	56	0	58	1	66	2	60	2	61
After 1st drop	0	56	0	58	3	69	3	63	2	63
2nd day	5	61	3	61	6	75	3	66	4	67
3rd day	3	64	5	66	0	75	9	75	4	71
4th day	5	69	2	68	3	78	9	84	5	76
5th day	22	91	24	92	12	90	12	96	18	94
After tower training but before 1st plane jump	5	96	3	95	9	99	0	96	4	98
Third week: Jump Training										
After 1st plane jump	2	98	5	100	1	100	2	98	2	100
After 2nd plane jump	0	98	0	100	0	100	2	100	([b])	100
After 3rd plane jump	0	98	0	100	0	100	0	100	0	100
After 4th plane jump	2	100	0	100	0	100	0	100	([b])	100
After 5th plane jump	0	100	0	100	0	100	0	100	0	100
Size of sample	(61)		(65)		(67)		(65)		(258)	

[a] A – Per cent of washouts at each stage of training.
B – Cumulative per cent of washouts at each stage of training.
[b] Less than one-half of one per cent.

ATTITUDES OF AIRBORNE TRAINEES

In the questionnaire administered to Airborne trainees at the end of their third day of training, men were asked to give their opinions of the Airborne and the Airborne training. Also included were questions measuring self-confidence and fear. Questionnaire responses from the four orientation groups were compared to determine whether variations in orientation procedures would effect changes in the attitudes of the participants. For the purpose of this report, the questions were organized into questionnaire "areas" to determine which specific aspects were significantly affected by a specific kind of orientation. The effects of the differing orientations upon the attitudes of the Airborne students are summarized in this chapter.

Throughout the remainder of this report, the only trainees considered in the analysis are those men who successfully completed the Airborne training course and who filled out the questionnaire in usable form.[9]

Attitudes Toward Men in the Airborne

Only one of four questions pertaining to attitudes toward men in the Airborne showed a significant difference among the groups. The question asked whether Airborne or Ground Infantry soldiers could be counted on more to help a buddy in combat. Men participating in the "Glory" orientation were more likely than men in the other three groups to feel that Airborne soldiers were more reliable in this situation (Table 5).

Table 5

ATTITUDES TOWARD MEN IN THE AIRBORNE
(per cent)

Responses	Orientation				All Trainees
	Standard	Non-Fear	None	Glory	
Airborne soldiers can be counted on more to help a buddy in combat[a]	39	43	48	54	46
The best men volunteer for Airborne training	33	35	36	41	36
Better than average men volunteer for Airborne training	32	37	34	35	34
Civilians think the best men volunteer for Airborne training	40	39	37	45	40
Civilians think better than average men volunteer for Airborne training	36	36	40	33	36
Airborne has greatest number of brave soldiers	46	37	51	48	46
Size of sample	(144)	(138)	(142)	(135)	(559)

[a]The chi-square value for all four groups was significant at the .05 level.

[9]Comparisons between successful and unsuccessful Airborne trainees are being made in another study currently in progress.

Distinctiveness of the Airborne

The men of the Airborne are already distinguishable from men in other branches of the armed services by their jump boots, cap insignia, and parachutists' wings. Trainees in the four orientation groups were asked several questions regarding their views on whether further distinctions of this type should be made between Airborne soldiers and other soldiers. Other questions sought to determine the degree to which the students regarded the Airborne as an elite organization. Among the orientation groups, no significant differences appeared on these items (Table 6).

Table 6

DISTINCTIVENESS OF THE AIRBORNE
(per cent)

Responses	Orientation				All Trainees
	Standard	Non-Fear	None	Glory	
The Airborne should be made a separate branch	67	77	65	64	68
More difference than exists now should be made between Airborne and Infantry uniforms	73	75	80	76	76
Almost every soldier would like Airborne wings	53	55	56	59	55
Most soldiers would like Airborne wings	28	30	30	30	30
Almost all soldiers could pass the Airborne course if they really tried	24	25	19	27	24
Most soldiers could pass the Airborne course if they really tried	35	34	41	32	36
Size of sample	(144)	(138)	(142)	(135)	(559)

Attitudes Toward Discipline in the Airborne

Like the wings and boots which distinguish Airborne soldiers from other troops, discipline and "spit and polish" are part of the Airborne tradition. The varying of orientation procedures had no apparent effect on the trainees' opinions on questions in this area. No significant differences occurred among the orientation groups on attitudes toward discipline in the Airborne (Table 7).

Table 7

ATTITUDES TOWARD DISCIPLINE IN THE AIRBORNE
(per cent)

Responses	Orientation				All Trainees
	Standard	Non-Fear	None	Glory	
There is much more discipline in Airborne than in Ground Infantry	79	85	81	82	82
Strict discipline is very important in training a good paratrooper	67	69	66	78	70
Strict discipline is fairly important in training a good paratrooper	22	29	21	11	21
"Spit and polish" is very important in training a good paratrooper	44	54	50	51	50
"Spit and polish" is fairly important in training a good paratrooper	35	30	32	28	31
Size of sample	(144)	(138)	(142)	(135)	(559)

Attitudes Toward the Airborne

Men who volunteer for the Airborne presumably expect to be part of an organization which they can regard with pride. The elements of this pride include the importance of the Airborne to the man himself, the honor that goes with wearing the distinctive insignia, and, to some extent, the reputation of the units themselves.

On items related to attitudes toward the Airborne, statistically significant differences occurred among the four orientation groups on two questions, one asking the trainees to assess the relative danger of serving in several branches of the Armed Forces, and the other asking how trainees thought civilians regarded the Airborne (Table 8).

Men in the "Standard" orientation group were least likely to regard the Airborne as the "most dangerous" outfit. This finding is of particular interest because this group was the only one in which the subject of danger had been discussed during the orientation. At that time these men had been reassured of the comparative safety of the Airborne, and the lesson apparently had definite effect.

On the other hand, the "Standard" group was the least likely to feel that civilians regard the Airborne as the "best outfit" or "better than most outfits." Men in the "Non-Fear" group were the most likely to think that civilians hold a high opinion of the Airborne as compared with other outfits. However, these variations may be unimportant in the light of the results for the other related items, which showed no significant differences among groups.

Table 8

ATTITUDES TOWARD THE AIRBORNE
(per cent)

Responses	Orientation				All Trainees
	Standard	Non-Fear	None	Glory	
Airborne is:					
Best outfit	62	64	67	68	65
Better than most outfits	26	29	24	25	25
Civilians feel Airborne is:[a]					
Best outfit	31	34	39	45	37
Better than most outfits	26	44	30	30	33
Airborne gets:					
The best deal	15	14	16	14	15
Better deal than most outfits	34	37	35	40	36
Airborne is most dangerous outfit[a]	49	70	68	70	64
Airborne is:					
Tough	59	58	57	61	58
Brave	26	27	30	28	30
I would try to get in Airborne myself, without buddy, if only one of us could join	36	40	39	41	39
Getting parachutists' wings is:					
One of my life's greatest accomplishments	50	53	52	56	52
A very great accomplishment	39	42	40	37	40
Getting through Airborne training is:					
One of the most important things in my life	46	46	50	53	48
Very important to me	39	43	37	40	40
Airborne will make better man of me	76	79	80	85	80
Size of sample	(144)	(138)	(142)	(135)	(559)

[a]The chi square for all four groups was significant at the .05 level.

Attitudes Toward Training

To determine whether or not the orientations had differential effects on the trainees' attitudes toward the Airborne training program, the men were asked to express opinions both about the program in general and about specific phases. As measured by these items, the orientation procedures had no differential effects on the trainees' opinions about the program (Table 9).

Table 9

ATTITUDES TOWARD TRAINING
(per cent)

Responses	Orientation				All Trainees
	Standard	Non-Fear	None	Glory	
Airborne training is just about the best possible training	54	55	51	52	53
Airborne training should be as tough as possible	53	58	52	58	55
The physical training would be:					
Very hard	26	17	18	25	21
Fairly hard	38	46	46	42	43
The 34-foot mock tower jump would be:					
Very hard	8	4	6	9	7
Fairly hard	24	20	21	20	21
The 250-foot free fall would be:					
Very hard	10	5	7	10	8
Fairly hard	26	27	21	16	23
The airplane jump would be:					
Very hard	22	17	20	26	22
Fairly hard	29	30	32	27	29
Size of sample	(144)	(138)	(142)	(135)	(559)

Attitudes Toward Washing Out

One of the factors unique to the "Standard" orientation was the free mention of the possibility of washing out of the Airborne program. However, questions designed to measure relative differences among the groups in this area reveal no significant differences (Table 10).

Table 10

ATTITUDES TOWARD WASHING OUT
(per cent)

Responses	Orientation				All Trainees
	Standard	Non-Fear	None	Glory	
I am more worried about being a coward in training than I am about danger of serious injury	38	35	32	30	34
Students fail Airborne course because they don't like the discipline	22	18	27	19	22
Students fail Airborne course because they don't have enough courage	20	16	20	19	19
Students refusing to jump should be given additional training	24	22	18	25	22
Students refusing to jump should be transferred	63	67	68	67	66
Size of sample	(144)	(138)	(142)	(135)	(559)

General Attitudes Toward the Army

The questions in this section represent only the roughest measure of attitudes toward the Army. Certainly these attitudes are related to many factors besides Airborne training and the kind of orientation given; one of the most important is the conditions under which a man came into the Army. Men who had enlisted in the Regular Army might be expected to have a more favorable attitude toward the Army than men drafted into service. For this reason, Regular Army men and draftees were examined separately in this section.

In answering the question, "If you could have an Honorable Discharge today and knew you would not be drafted later, would you take the Honorable Discharge?", there were no significant differences either among the Regular Army men or among the draftees as a result of the orientation given (Table 11).

When asked to name the branch of service they would like most to be in, again neither the Regular Army men nor the draftees showed any significant differences among orientation groups.

Table 11

GENERAL ATTITUDES TOWARD THE ARMY
(per cent)

Responses	Orientation				All Trainees
	Standard	Non-Fear	None	Glory	
Regular Army men only:					
Would definitely accept an Honorable Discharge now	42	40	34	47	41
Would probably accept an Honorable Discharge now	17	14	26	23	20
Would like most to be in the Army	30	27	27	20	27
Would like most to be in the Air Force	23	27	19	17	21
Size of sample	(87)	(86)	(82)	(94)	(349)
Draftees only:					
Would definitely accept an Honorable Discharge now	84	69	65	68	72
Would probably accept an Honorable Discharge now	5	21	15	15	14
Would like most to be in the Army	30	27	27	20	27
Would like most to be in the Air Force	41	46	53	60	49
Size of sample	(56)	(52)	(59)	(40)	(207)

Measures of Self-Confidence

The degree to which the various orientation procedures affected the self-confidence of the Airborne trainees was assessed by two types of questions. Five direct questions dealt with the student's opinions of his own abilities, and three indirect questions concerned how others would feel if he failed to get through Airborne training. (See Table 12.)

On only one of the five direct questions was there a significant difference among the orientation groups. Men in the "Non-Fear" group expressed more certainty about being able to pass the Airborne course. The men in this group also tended to be somewhat more confident than men in the other groups on the other items, although statistically significant differences among the groups did not appear.

The indirect questions in which the trainee indicated whether other people cared about his passing the Airborne course could be

interpreted as measuring how much he might be rationalizing a lack of confidence in his ability to succeed. This indirect evidence, like the responses to the direct questions, points toward greater confidence among the trainees who had the "Non-Fear" orientation. On the questions asking the trainees to check the people who did not want them to pass the Airborne course, there was a significant difference among the groups, with men in the "Non-Fear" group indicating most often that there was no one who did not wish them to pass. On two other items also, men in the "Non-Fear" group tended to be less likely to indicate that their parents and relatives wished them to fail the course; on these items, however, the differences among the groups were not significant.

Table 12

MEASURES OF SELF-CONFIDENCE
(per cent)

Responses	Orientation				All Trainees
	Standard	Non-Fear	None	Glory	
I think I will make a very good soldier	47	38	43	42	42
I think I will make a fairly good soldier	45	56	52	50	51
I can do anything anyone else can	22	22	19	18	20
I can do more than most people	13	14	9	15	18
I am almost positive I will pass Airborne training	44	60	53	48	51
I can do 50 or more push-ups	73	76	69	65	71
I am almost sure I could run 3 1/2 hours without stopping if my life depended on it	37	46	32	33	37
Parents would be sorry if I failed the Airborne course	44	55	53	47	50
Parents or relatives want me to get through Airborne training	50	60	50	45	51
Parents or relatives do not want me to get through Airborne training	34	16	27	31	27
There is no one who does not want me to get through Airborne training[a]	51	65	53	50	54
Size of sample	(144)	(138)	(142)	(135)	(559)

[a]The chi square for all four groups was significant at .05 level.

Measures of Fear

In the questions designed to measure fear by the reporting of psychological or physical reactions,[10] no significant difference was observed in the comparison of the orientation groups (Table 13).

Table 13

MEASURES OF FEAR
(per cent)

Responses	Orientation				All Trainees
	Standard	Non-Fear	None	Glory	
One in ten thousand men are injured in training jumps[a]	36	19	21	23	25
I have never been afraid of high places	51	56	57	55	55
During the past few days I have experienced often or several times:					
a. Sinking feeling in the stomach	11	12	14	10	12
b. Inability to remember things that happened yesterday or today	4	4	9	9	9
c. Violent poundings of the heart	17	12	18	19	17
d. Feelings of weakness or faintness	9	4	4	7	6
e. Stiff and sore muscles	62	62	64	59	62
f. Dryness of mouth and throat	31	30	31	35	33
g. Sick feeling at the stomach	6	3	5	8	6
h. Sweating in palms and hands	31	28	33	38	33
i. Shaking and trembling all over	8	4	7	5	6
j. Having to move bowels more than usual	4	2	4	2	3
k. Getting angry at someone	16	20	14	18	17
l. Having to urinate more than usual	6	5	5	6	6
m. Being confused and rattled	15	15	14	14	15

(Continued)

[10]Guttman-type scales were used as a measure of fear and psychoneurotic tendencies. While these items scaled, they failed to discriminate among the orientation groups. The items used were variations of the scale of Psychosomatic Complaints and the Neuropsychiatric scale. See Stouffer, Samuel A., *et al.*, "Measurement and Prediction," Vol. IV of *Studies in Social Psychology in World War II*, Princeton University Press, Princeton, N. J., 1950.

Table 13 (Continued)

MEASURES OF FEAR
(per cent)

Responses	Orientation				All Trainees
	Standard	Non-Fear	None	Glory	
During the past few days, I have quite often or several times:					
a. Felt I could not stand to be with people	10	11	11	6	10
b. Felt restless	40	38	38	31	37
c. Felt sad and unhappy	46	49	42	48	46
d. Had bad dreams	10	3	10	6	7
e. Felt I could not stand to be alone	10	10	14	14	12
f. Felt really scared	27	24	30	25	27
g. Missed home	57	56	65	69	62
Size of sample	(144)	(138)	(142)	(135)	(559)

[a]The chi square for all four groups was significant at the .05 level.

When asked to estimate the number of troops injured in training jumps, the "Standard" orientation group gave the correct answer of "one in ten thousand" in a higher proportion than did any of the other groups. As all the other responses from which the men could choose indicated a higher rate of injury, most of the men thus were overestimating the injury factor. The correct information had been given to the men in the "Standard" group during their orientation, but the point had not been included in the "Non-Fear" and "Glory" orientations. This fact seems closely related to a finding earlier in this report that men in the "Standard" group were least apt to regard the Airborne as the most dangerous outfit.

LEARNING AND RETENTION OF INFORMATION

To test the relative effect of the various orientation programs on the learning and retention of information, some questions on the history, tradition, and insignia of the Airborne were included in the questionnaire. As would be expected on those items that had been mentioned in the orientation talks, the "No Orientation" group had a significantly lower score than the other groups. When only the three groups who received some type of orientation were compared, they showed no significant differences (Table 14).

The questionnaire also included a number of items that had not been mentioned specifically in the orientations. The answers to these questions had been readily available to the students through contact with the cadre. The differences among the groups on these questions were not statistically significant.[11]

Table 14

LEARNING AND RETENTION OF INFORMATION
(per cent)

Correct Responses	Orientation				All Trainees
	Standard	Non-Fear	None	Glory	
Information included in orientations:					
First parachute test was formed in 1940[a]	90	92	49	80	78
Billy Mitchell tried to start an Airborne unit during World War I[a]	17	22	7	20	16
About 200,000 men have graduated from the Airborne training program[a]	58	54	35	48	49
Information not included in orientations:					
101st Airborne Division cited at Bastogne[a, b]	40	59	49	67	54
Wreath in Airborne wings means Master Jumper	14	12	13	17	14
Star on top of Airborne wings means Senior Jumper	14	15	16	22	17
508th Regimental Combat Team is nicknamed "The Red Devils"	55	65	61	52	58
Size of sample	(144)	(138)	(142)	(135)	(559)

[a]The chi square for all four groups was significant at the .05 level.
[b]This fact was included in the "Glory" orientation only.

[11]The "Glory" orientation group did give the correct answer more often than the other groups on the question concerning the 101st Division at Bastogne. This fact had been included in the film viewed by this group but not in the orientations of the other groups.

TRAINEES' EVALUATIONS OF THE ORIENTATION

Men in the three groups receiving orientations were asked to evaluate the orientation they had received. Regardless of the type of orientation, over 40 per cent of the men who answered the question in each group thought the talks were "very good" (Table 15).

Table 15

EVALUATION OF THE ORIENTATION
(per cent)

Responses	Orientation			All Orientations
	Standard	Non-Fear	Glory	
The orientation talks were:				
Very good	48	40	40	43
Fairly good	28	30	30	29
OK	13	19	19	17
Not so good	4	7	6	6
No answer	7	4	5	5
Size of sample	(144)	(138)	(135)	(417)
The main reason for the orientation talks was:				
To show the importance of mental alertness	50	44	51	49
To make us want to be paratroopers	41	47	39	42
To teach us the correct way to jump	6	6	5	5
No answer	3	3	5	4
Size of sample	(144)	(138)	(135)	(417)

Trainees were asked to choose the main purpose of the orientation from among three categories. Approximately 50 per cent of the men who responded thought the main reason for the talks was "to show the importance of mental alertness." More than 40 per cent felt the aim of the orientations was "to make us want to be paratroopers." On this question there was no significant difference among the groups.

CONCLUSION

The results of this study indicate that no important differences in performance or attitudes occurred among the Airborne trainees as a result of varying the training orientations.

The relatively small amount of time devoted to the orientations probably accounts for the general absence of differential effects from the various procedures which were tried. When compared with three weeks of intensive Airborne training, the two hours devoted to orientation would seem to be a minor factor in the training routine. As such it can hardly be expected to yield important results.

However, the findings may be interpreted as a justification for the continued use of some kind of formal orientation, since wherever improvements occurred they were in one of the groups which had had an orientation.

Appendix A

BRIEF DESCRIPTION OF THREE-WEEK AIRBORNE TRAINING COURSE

(December 1952)

A. Pre-Training Orientation

For a description of the pre-training orientation, see Introduction.

B. Ground Training—The First Week

Some of the major aspects of the first week of Airborne instruction are:

1. An instructional talk by the Group Chief of Ground Training.
2. A talk about the disciplinary measures used during Airborne training. For example, the men are told about correctional push-ups, wherein 10 push-ups are assigned to the trainee by members of the cadre for errors occurring during the training.
3. Extensive physical training.
4. Mock door training. The men are trained to use the proper position for exiting from a plane door. This takes place in a structure resembling a plane door.
5. Mock tower training. From a mock door on a platform 34 feet above the ground, the trainees are taught the proper exit from a plane door and the proper manner of absorbing the opening shock of a parachute. When a jump is made, the trainee's fall is arrested by a harness attached to a guide wire, and he is carried along the guide wire to a mound about 300 feet from the mock tower. At this mound he is unhooked from the harness. This is the first time in Airborne training that the trainee experiences jumping from a height.
6. Parachute landing fall from a two-foot platform. By means of a jump from a two-foot platform, trainees are taught the correct position for hitting the ground in a parachute fall. By this device, the trainee is taught to hit the ground in such a manner as to absorb the shock of landing.

7. Training in collapsing a parachute. This training includes the collapsing of a parachute while windy conditions are being simulated.
8. Plane conduct training. This includes drills in which the men learn how to "stand-up and hook-up," how to check equipment, and how to approach the plane door preparatory to exit.

C. Tower Training—The Second Week

Some of the major aspects of training during the second week of Airborne training are:

1. Suspended harness training. Trainees are suspended in a parachute harness and taught how to manipulate the risers properly during a parachute fall.
2. Landing fall from a four-foot platform. This is essentially the same kind of training as that given during the first week on the two-foot platform.
3. Training on the 250-foot free fall tower. Trainees are given further training in proper landing techniques and in the control and manipulation of the parachute. The student is strapped into a harness attached to an open parachute at the bottom of the 250-foot tower. The open parachute (somewhat larger than that used in actual plane jumps) is hoisted to the top of the tower and released to drift to the ground without the control of guide lines.
4. Canadian swing landing trainer. Suspended in a parachute harness, trainees are swung from a 12-foot platform and allowed to sway for a short time. At some point during the swing, the rope is released from its support and the student is dropped to the ground. This is designed to further develop the trainees' skill in proper landing techniques.
5. Instructions in kinds of parachute malfunctions and what to do in the event of a malfunction.
6. Training in the use of the reserve parachute.
7. Continued rigorous physical training.
8. Mass-exit technique. Trainees are jumped from the 34-foot mock tower in successive groups of four in the same manner as they are jumped from a plane in flight; that is, only the first man in the group is signaled to jump, the others following without signal.
9. Continued plane conduct training.

D. Jump Training—The Third Week.

Some of the major aspects of the third and final week of Airborne training are:

1. Briefing on jump procedures. Trainees are instructed in the correct methods of making plane jumps.
2. Instructions regarding methods of getting out of a parachute harness after reaching the ground.
3. Jumps from a plane in flight. To qualify for a parachutist's wings, a trainee must make five jumps from a plane in flight. On the first two jumps the men are "tapped" out individually; on the last three jumps they make mass exits.
4. A field training problem in conjunction with a training jump from a plane in flight. This is done on the fifth, or last, jump.

Appendix B

DETERMINATION OF STATISTICALLY SIGNIFICANT DIFFERENCES

The chi-square analysis was used to determine the relative effectiveness of the four orientation procedures. In the chi-square test the four orientation groups were examined together to determine whether one or more of the orientations affected the distribution of responses.

In the chi-square tests, the items generally were dichotomized into "favorable" and "unfavorable" categories. Where the distribution was such that an extremely high proportion of responses fell into the two "favorable" categories (e.g., "very good" and "good"), the cut-off point was made between the two "favorable" categories which was usually around the median point.[1] Thus, in most cases, chi-square tests involved 4 x 2 tables. The sections of this report describing the results of the questions on attitudes toward the orientations are based on 3 x 2 tables, men in the "No Orientation" group having been omitted from these computations.

A chi-square value was regarded as being statistically significant if the probability of a chi square of such a size, or larger, occurring by chance was less than 5 in 100.

[1] "No Answers" were excluded from the chi-square computations.

Appendix C

COMPARISON OF BACKGROUND INFORMATION, BY ORIENTATION GROUP, OF MEN PASSING AIRBORNE TRAINING

Table C-1

AGE

(per cent)

Age in Years	Orientation				All Trainees
	Standard	Non-Fear	None	Glory	
17	12	13	12	16	13
18	16	17	13	12	15
19	17	13	12	19	15
20	21	19	22	22	21
21	15	20	19	14	17
22	6	6	10	7	7
23	5	5	4	4	4
24	1	4	2	1	2
25 and over	6	2	5	5	5
No answer	1	1	1	0	1

Table C-2

RACE

(per cent)

Race	Orientation				All Trainees
	Standard	Non-Fear	None	Glory	
White	83	81	86	85	84
Negro	17	19	14	15	16

Table C-3

EDUCATION

(per cent)

Educational Level	Orientation				All Trainees
	Standard	Non-Fear	None	Glory	
Less than the 8th grade	3	2	5	4	3
Finished 8th grade	10	11	8	5	9
Some high school	32	40	32	36	35
Graduated from high school	44	36	46	43	42
Some college	10	11	8	11	10
No answer	1	0	1	1	1

Table C-4

RELIGION

(per cent)

Denomination	Orientation				All Trainees
	Standard	Non-Fear	None	Glory	
Protestant	64	67	69	67	67
Catholic	31	28	26	29	28
Jewish	0	1	1	1	1
Other religion	1	2	0	0	1
No preference, no religion	2	2	3	2	2
No answer	2	0	1	1	1

Table C-5

ARMY STATUS

(per cent)

Component	Orientation				All Trainees
	Standard	Non-Fear	None	Glory	
Regular Army	60	62	58	70	63
Draftee	39	38	41	29	37
Enlisted Reserve	0	0	1	1	(a)
National Guard	0	0	0	0	0
No answer	1	0	0	0	(a)

[a]Less than one-half of one per cent.

Table C-6

ARMY GRADE
(per cent)

Grade	Orientation				All Trainees
	Standard	Non-Fear	None	Glory	
Private (E-1)	2	2	3	4	3
Private (E-2)	82	86	82	85	84
Private First Class (E-3)	11	7	11	8	9
Corporal	3	3	3	2	3
Sergeant (E-5) Sergeant First Class (E-6) Master Sergeant (E-7)	2	2	1	1	1

Table C-7

GEOGRAPHIC AREA OF ORIGIN
(per cent)

Area	Orientation				All Trainees
	Standard	Non-Fear	None	Glory	
New England	4	5	3	3	4
Atlantic Seaboard	22	19	17	16	18
Southeast	27	27	31	27	28
North Central	6	11	9	15	10
Midwest	21	15	18	18	18
Southwest	6	11	10	13	10
Mountain States	4	4	3	1	3
Pacific Coast	8	7	6	5	7
U.S. possessions	1	0	0	2	1
Foreign countries	0	1	3	0	1
No answer	1	0	0	0	(a)

[a]Less than one-half of one per cent.

Table C-8

NUMBER OF DEPENDENTS

(per cent)

Dependents	Orientation				All Trainees
	Standard	Non-Fear	None	Glory	
One	23	19	17	21	21
Two	4	11	9	10	8
Three	2	2	2	2	2
Four or more	1	4	0	1	2
None	61	59	67	61	62
No answer	9	5	5	5	5

Table C-9

ARMED FORCES QUALIFICATION TEST SCORES

(per cent)

Group	Orientation				All Trainees
	Standard	Non-Fear	None	Glory	
I	4	6	4	4	4
II	27	22	25	28	26
III	38	48	43	44	43
IV	24	20	20	18	20
V	1	0	2	2	2
No information	6	4	6	4	5

Appendix D

EXPLANATION OF REASONS FOR NONCOMPLETION OF AIRBORNE TRAINING WHICH APPEAR ON STUDENT PROGRESS CARDS

Refused to Jump from the Mock Tower (RJMT). Trainees refusing to jump from the 34-foot mock tower are permanently disqualified from Airborne training. The mock tower provides the first major opportunity they have for leaving the training program.

Failed Physical Training Test (PT). When it is found that trainees are having difficulty keeping up with the rigorous physical exercises required, they are given a physical training test. In this test, trainees are required to attain a specified score on such items as push-ups, sit-ups, and running. A trainee who fails to attain this score discontinues training with his class. Some of those failing are classified as "Not Adaptable to Airborne Training" (see below); others who exhibit a strong desire to continue training are washed back into a less advanced class after they are able to pass the physical training test.

Not Adaptable to Airborne Training (NAAT), Not Adaptable Permanently (NAP). Students placed in these categories are permanently disqualified from further Airborne training. For example, the group includes some of the students who fail the physical training test, and students who are considered "slackers."

Temporarily Relieved for Medical Reasons (TR). Trainees losing training time because of temporary physical ailments are temporarily relieved from Airborne training. When no longer handicapped by the physical disability, the trainee may reapply for Airborne training.

Turnback. When the cadre considers that a student has not attained sufficient proficiency to assure his own safety in plane jumps, he is transferred to another, less advanced class for additional training.

Permanently Disqualified for Medical Reasons (PD). Trainees suffering from permanent physical disabilities which would interfere with their duties as an Airborne soldier are permanently disqualified.

Refused to Jump from Free Fall Tower (RJFT). Trainees refusing to take the parachute descent from the 250-foot free fall tower are permanently disqualified from Airborne training.

Refused to Jump from Plane in Flight (RJPF). Students refusing to jump from the plane in flight are permanently disqualified from Airborne training.

Miscellaneous. Included in the miscellaneous category are men who did not complete training because they went AWOL, or men who had to go on emergency leave. Also included in this group are men who are discharged, confined, or disqualified for administrative reasons.